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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/670,622      | 09/25/2003  | John J. Vrana        | 60,152-1012         | 6732             |

27305 7590 03/02/2006

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| EXAMINER |
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MAZZUCA JR, DOUGLAS

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| ART UNIT | PAPER NUMBER |
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3726

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/670,622             | VRANA ET AL.        |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Douglas E. Mazzuca     | 3726                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 3, 4, 8, 9 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 5-7, 10-11, and 13-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/25/2003</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. Applicant's election with traverse of claims 1-13 in the reply filed on 1/18/2006 is acknowledged. The traversal is on the ground(s) that the claimed method of attaching a locator stud on a panel of Group I results in the locator stud and panel assembly of Group II and, therefore, the inventions are not materially different. This argument is found persuasive because, upon further consideration, the locator stud of Group II is in the examiners opinion, not separable and materially distinct from the process of Group I. The restriction between Group I and Group II is lifted.

2. However, the species restriction is still deemed proper. The locator stud differs in structure considerably in each of the four species. Furthermore, as per the reply filed on 1/18/2006, claims 3, 4, 8, 9, and 12, are drawn to species other than elected species A and will therefore not be considered. The locator stud of species A has a frustoconical outer surface before deformation from the opposing dies. The other species do not have this feature.

The species restriction is still deemed proper and is therefore made **FINAL**.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-2, 5-7, and 10-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 and 11 both state, "forming an opening in said panel having a diameter greater than said flange portion of said locator stud". It is unclear as to whether the diameter is referring to the hole in the panel or the panel itself. Under prosecution, the examiner will interpret the diameter to be in reference to the hole. Also, in claim 3, line 4, applicant uses the phrase "driving said concave surface of said first annular die surface". However, in the previous line, the first annular die surface is said to be convex.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 7, 11 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ladouceur (US Patent No. 5,868,535) in view of Brancato (US Patent No. 2,780,265). In regard to claims 1, 11, and 20, Ladouceur discloses the following: A method of attaching a locator stud on a panel (**column 1 lines 5-8**), said locator stud including a cylindrical shank portion (**fig. 1, 28**) and a generally cylindrical flange portion

(24) adjacent one end of said locator stud having a diameter greater than said shank portion and a radial rim portion adjacent one end of said shank portion (**figure 3, outer part of 42**), and a generally radial annular bearing surface (**42**) between said flange portion and said shank portion (**figure 1**), said method comprising the following steps: forming an opening in said panel (**column 5 lines 56-60**); inserting said flange portion of said locator stud in said panel opening (**figure 4; column 6 lines 15-20**); driving a plunger toward said panel including an opening receiving said shank portion of locator stud (**column 6 lines 21- 23**), a first annular die surface surrounding said opening of said plunger coaxially aligned with said annular bearing surface (**figure 4; driving surface 63 against annular bearing surface 42**), deforming said annular bearing surface radially outwardly against said panel (**difference between figure 6 and 7, number 24; column 7 lines 27-29**), and a second projecting annular die surface surrounding said first annular die surface against said panel (**figures 4-7, 54**), deforming said panel radially inwardly (**68**) around said radial rim portion (**figure 7, 42**) and against an outer concave surface of said flange portion (**66**), locking said flange portion in said opening of said panel (**figure 7**).

7. Ladouceur fails, however, to disclose the diameter of the hole in the panel to be greater than the flange portion of the locator stud. Brancato teaches the hole (**figure 1, 11**) in the panel to be greater in diameter than the inserted object (**15**). If the hole were not greater in diameter than the object, then inherently, the object would not fit in the hole. It would have been obvious to one of ordinary skill in the art at the time of the

invention to form a hole in a panel greater in diameter than the inserted object in order to be able to fully and properly place the object in the hole.

8. In regard to claim 7, Ladouceur discloses most of the claimed information as listed above, including the first projecting annular die surface to be greater than the flange portion of the locator stud (**figures 5-7, diameter of 64 is greater than 24**), yet fails to teach the structural specifics of the first and second projecting annular dies. Brancato teaches the first and second projecting annular dies to have a generally equal diameter. Furthermore, both die surfaces create annular depressions into opposing sides of the panel surrounding the object. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have opposing dies creating annular depressions in opposing sides of a panel in order to better deform the panel inwardly from both sides.

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ladouceur (US Patent No. 5,868,535) in view of Brancato (US Patent No. 2,780,265) and further in view of Watson (US Patent No. 2,486,769). Ladouceur and Brancato teach most of the claimed information, yet fail to teach the bottom of the stud being flush with the panel. Watson teaches the bottom of the stud, after insertion, being flush with the bottom of the panel (**figures 10 5, 6 flush with panel 5**). The purpose of having a flush surface with the panel is to create a smooth and even surface so as to not interfere with any further manufacturing processes and to furthermore make a clean, smooth opposing side to the locator stud. Therefore it would have been obvious to one of ordinary skill in the art, at the time of the invention, to create a smooth, flush surface,

after installation, so as to not interfere with any post manufacturing processes, which may require a flat and even panel on one side.

10. Claim 5-6, 10, 13, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ladouceur (US Patent No. 5,868,535) in view of Brancato (US Patent No. 2,780,265) and further in view of Muller (US Patent No. 4,543,701). While Ladouceur and Brancato disclose most of the claimed information as listed above, they fail to teach the outer end surface of the flange being concave or frustoconical. Muller teaches the outer end surface of the flange being concave and frustoconical (**figure 2, upper end of 140**) with its minor diameter adjacent to the radial rim portion (**130**) of the flange. Furthermore, upon insertion into the panel, the frustoconical flange deforms radially outwardly (**column 5 lines 43-44**) thus entrapping the panel (**figure 6, 46**). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have made the outer end portion of the flange in a concave fashion in order to better receive the deformed panel upon insertion.

11. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ladouceur (US Patent No. 5,868,535) in view of Watson (US Patent No. 2,486,769). Ladouceur discloses the following: A locator stud (**figure 1, 20**) and a panel assembly (**Figure 7**), comprising: a locator stud including a generally cylindrical shank (**28**) portion and a radial flange portion (**24**) integral and coaxially aligned with said shank portion having a concave outer surface (**inner part of 42**) and a panel (**52**) having a thickness generally equal to an axial length of said flange portion of said locator stud having an opening therethrough (**column 5 lines 56-60**) receiving said

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flange portion of said locator stud including a convex inner surface deformed into said concave outer surface of said flange portion (**figure 7, 68**).

12. Ladouceur fails to teach the flange portion of the locator stud being flush with panel. Watson teaches the flange portion of the object being flush with the panel, as is explained above in paragraph 9. Thus, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have combined the locator stud of ladouceur with the flush end taught by Watson in order create a smooth and flush surface, so as to not interfere with any post manufacturing processes, which may require a flat and even panel on one side..

13. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ladouceur (US Patent No. 5,868,535) in view of Watson (US Patent No. 2,486,769) and further in view of Brancato (US Patent No. 2,780,265). While Ladouceur in view of Watson teach most of the claimed information, they fail to teach the annular opposing die's having a V-shaped annular ring. Brancato teaches making V-shaped annular depression in either one surface or both surfaces of the panel surrounding the flange portion. It would have been obvious to one of ordinary skill in the art at the time of the invention to have created annular indentations in either one or both sides of the panel in order to deform the surrounding panel so as to fill the gap between the flange and the panel, thus locking the flange in the panel.

14. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ladouceur (US Patent No. 5,868,535) in view of Watson (US Patent No. 2,486,769) and further in view of Muller (US Patent No. 4,543,701). While Ladouceur



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in view of Watson teach most of the claimed information as listed above, they fail to teach the end face of the stud being concave. As has been stated above in paragraph 10, Muller teaches an end face of the flange to be generally arcuate and frustoconical (**figure 2, 140**), this being formed by a radial rim portion (**35**) adjacent a minor diameter of the flange (**inner 32**). As can be seen in figure 6, the panel conforms to the arcuate concave form of the flange. Therefore it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have combined and arcuate end portion of a flange with the stud of Ladouceur and Watson in order to more accurately and efficiently combine and lock with the panel.

### ***Conclusion***

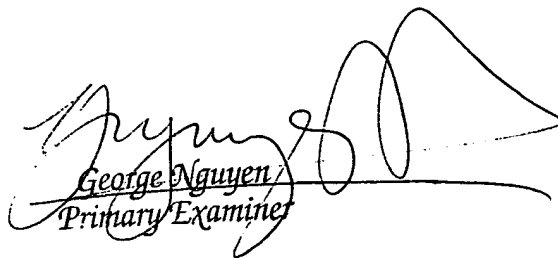
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas E. Mazzuca whose telephone number is (571)272-7813. The examiner can normally be reached on 7:30AM-4PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on (571)272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Douglas Mazzuca  
February 24, 2006

DEM

  
George Nguyen  
Primary Examiner